
TITLE 329 SOLID WASTE MANAGEMENT BOARD

SECOND NOTICE OF COMMENT PERIOD

LSA Document #08-55

DEVELOPMENT OF AMENDMENTS TO RULES AT [329 IAC 9](#) CONCERNING ADDITIONAL PROTECTION FOR GROUND WATER PURSUANT TO THE FEDERAL ENERGY POLICY ACT OF 2005

PURPOSE OF NOTICE

The Indiana Department of Environmental Management (IDEM) has developed draft rule language for amendments to [329 IAC 9](#) concerning additional protections for ground water by under-dispenser spill containment of underground storage tanks and the secondary containment of any new or replaced underground storage tanks. By this notice, IDEM is soliciting public comment on the draft rule language. IDEM seeks comment on the affected citations listed and any other provisions of Title 329 that may be affected by this rulemaking.

HISTORY

First Notice of Comment Period: January 30, 2008, Indiana Register (DIN: [20080130-IR-329080055FNA](#)).

CITATIONS AFFECTED: [329 IAC 9-1-18.5](#); [329 IAC 9-1-27.4](#); [329 IAC 9-1-27.5](#); [329 IAC 9-1-27.6](#); [329 IAC 9-1-27.8](#); [329 IAC 9-1-37](#); [329 IAC 9-1-40.5](#); [329 IAC 9-1-41.8](#); [329 IAC 9-1-45.5](#); [329 IAC 9-2-1](#); [329 IAC 9-2-2](#); [329 IAC 9-3-1](#); [329 IAC 9-3-1.2](#).

AUTHORITY: [IC 4-22-2](#); [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-14-9](#); [IC 13-15-2](#); [IC 13-19-3](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#); [IC 13-30-2](#).

SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING

Basic Purpose and Background

The 2005 Federal Energy Act, Public Law 109-58, effective August 8, 2005, contained under Subtitle B the Underground Storage Tank Compliance Act. Under Section 1530 of the Act, Congress requires additional measures to protect ground water by requiring, at a minimum, the state to choose one of the following:

1. Each new underground storage tank or piping connected to any such new tank, installed after February 8, 2007, or any existing underground storage tank or existing piping that is connected to such existing tank that is replaced after February 8, 2007, must be secondarily contained and monitored for leaks if the new or replaced underground storage tank or piping is within 1,000 feet of any existing community water system or any existing potable drinking water well; or
2. A person that manufactures an underground storage tank or piping for an underground storage tank system or that installs an underground storage tank system is required to maintain evidence of financial responsibility in order to provide for the costs of corrective actions directly related to releases caused by improper manufacture or installation unless the person can demonstrate themselves to be already covered as an owner or operator of an underground storage tank.

This rule will accomplish the objective of the federal law.

[IC 13-14-9-4](#) Identification of Restrictions and Requirements Not Imposed under Federal Law

The following element imposes either a restriction or a requirement on a person to whom the draft rule applies that is not imposed under federal law:

The draft rule would require secondary containment for new or replaced tanks. It also requires that each installation of a new motor fuel dispenser system must include under-dispenser spill containment.

Potential Fiscal Impact

There would be a cost for secondary containment of tanks. Secondary containment for tanks is approximately \$8,000 to \$15,000 per tank and there are about 40 new tanks in Indiana, which would amount to \$320,000 to \$600,000; however, at least 50% of the tanks are voluntarily secondarily contained each year so the final cost is approximately \$160,000 to \$300,000, with the total for seven years being \$1,120,000 to \$2,100,000.

The cost for under-dispenser spill containment is approximately \$350 per unit, and there are more than 50 and fewer than 100 new motor fuel dispenser systems installed per year in Indiana. This is approximately \$17,500 to \$35,000 per year with the total for the seven year period of the rule being \$122,500 to \$225,000.

Public Participation and Workgroup Information

Discussions have occurred on the two options presented by the Energy Policy Act between the department and some interested parties. During the discussions, some of the petroleum fueling companies expressed support for the secondary containment option and stated that they are installing secondarily contained tank systems as a matter of company policy. The percentage of cost of secondary containment is small compared to the total cost of a new facility. While the replacement cost of a secondarily contained tank system at an existing facility may be higher, the preventative nature of having a secondarily contained system will be less cost than conducting a

remediation of a leak from a single-wall tank. Tank manufacturers and tank installers expressed concern with obtaining and holding the financial responsibility mechanism (insurance) for the federally required time. While there have been two other states that have chosen the option of financial responsibility, the successful implementation of that option is in question due to the unavailability of an insurance product that would cover the 10-year and 30-year time commitment. Some of the participants contended that the installers and tank manufacturers already carry general liability insurance and that under the current case law in Indiana such insurance policies would cover the required financial responsibility. Others in attendance were not as confident that there was any assurance the case law would continue to support that position in the future.

No workgroup is planned for the rulemaking. If you feel that a workgroup or other informal discussion on the rule is appropriate, please contact Lynn West, Rules, Planning, and Outreach Section, Office of Land Quality at (317) 232-3593 or (800) 451-6021 (in Indiana).

SUMMARY/RESPONSE TO COMMENTS FROM THE FIRST COMMENT PERIOD

IDEM requested public comment from January 30, 2008, through February 29, 2008, on alternative ways to achieve the purpose of the rule and suggestions for the development of draft rule language. IDEM received comments from the following parties by the comment period deadline:

Scott Imus, Executive Director, Indiana Petroleum Marketers and Convenience Store Association;

Christopher J. Braun, General Counsel, IPCA (IPCA)

Matt Gibson, President, Indiana Corn Growers Association; Mike Shuter, President, Indiana Corn Marketing Council (IC)

Following is a summary of the comments received and IDEM's responses thereto:

Comment: The EPA developed two exclusive options, secondary containment and financial responsibility, for state to adopt in implementing the UST provision of the 2005 Energy Policy Act. These alternatives were given largely to address the problems experienced in many states where the state UST funds are not solvent or available to pay for the environmental investigation and cleanup costs associated with leaking underground storage tanks. Congress purposefully did not take the extreme measure of mandating secondary containment but, instead, allowed the states to choose which option was best suited to its UST program and regulated industries. For those States with non-existent or inadequate state funds, secondary containment is, for all intents and purposes the only option and, unfortunately, with the increased costs of secondary containment will be borne solely by the UST owner and/or operator. However, for States like Indiana that have successfully developed and managed a viable state UST trust fund for more than a decade, it is neither prudent nor necessary to unnecessarily burden UST owners and operators with the enhanced costs of UST secondary containment, which costs will certainly be passed on to consuming public. The IPCA supports the option of financial responsibility because: (a) the principal source of UST system releases is piping, which is already required to be secondarily maintained by a law enacted by the General Assembly in 2007; (b) it is less expensive than secondary containment; (c) it has successfully been implemented in other States that adopted the financial responsibility option; (d) is consistent with existing management practices of qualified companies who maintain general liability insurance to cover their acts and omissions; (e) is consistent with Indiana's financial responsibility or "assurance" program under the Excess Liability Trust Fund (ELTF) for addressing liabilities arising from leaking underground storage tanks; and (f) is consistent with Indiana's initiative to support alternative energy, such as E85 fuel. (IPCA) (IC)

Response: Indiana will move forward with the option of secondary containment in this rulemaking. After a great deal of deliberation the department is recommending that the board adopt a rule requiring secondary containment of tanks installed after the rule is effective. It is the department's position that the additional cost to purchase and install a tank with secondary containment is far out-weighted by the cost of remediating a leak from a single walled tank. In addition, the thirty (30) year time commitment for tank and piping manufacturers and the ten (10) year time commitment for installers to maintain appropriate insurance can be expected to cause prominent manufacturers and installers to stop doing business in a state that mandates financial responsibility. If a particular tank or piping manufacturer decides to close their business, there is not an insurance product available to cover the remaining thirty (30) years or ten (10) years of liability, as applicable. The financial responsibility requirements on the manufacturer and installer will likely lead to increased litigation as to the fault or responsibility of a party. In addition, it would be expected that requiring financial responsibility from tank installers and tank manufacturers would result in increased single-walled tank and installation costs borne by the owner and operator that would be passed onto the product consumer. While some installers' and tank manufacturers' comprehensive general liability insurance may provide some measure of financial responsibility, the language in any individual policy is subject to change and is always subject to differing legal interpretations and therefore cannot meet current federal standards. In the long term, the financial responsibility option is a much less reliable option than secondary containment of tank systems and piping.

REQUEST FOR PUBLIC COMMENTS

This notice requests the submission of comments on the draft rule language, including suggestions for

specific revisions to language to be contained in the draft rule. Mailed comments should be addressed to:

#08-55(SWMB) (2008 UST GW Protection Rule)
Marjorie Samuel
Office of Land Quality
Indiana Department of Environmental Management
MC 65-45
100 North Senate Avenue
Indianapolis, Indiana 46204-2251.

Hand delivered comments will be accepted by the receptionist on duty at the eleventh floor reception desk, Office of Land Quality, 100 North Senate Avenue, Indianapolis, Indiana.

Comments may be submitted by facsimile at the IDEM fax number: (317) 232-3403, Monday through Friday, between 8:15 a.m. and 4:45 p.m. Please confirm the timely receipt of faxed comments by calling the Rules, Planning, and Outreach Section at (317) 232-7995.

COMMENT PERIOD DEADLINE

Comments must be postmarked, faxed, or hand delivered by July 11, 2008.

Additional information regarding this action may be obtained from Lynn West, Rules, Planning, and Outreach Section, Office of Land Quality, (317) 232-3593 or (800) 451-6027 (in Indiana).

DRAFT RULE

SECTION 1. [329 IAC 9-1-18.5](#) IS ADDED TO READ AS FOLLOWS:

[329 IAC 9-1-18.5](#) "Existing" defined

Authority: [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#)

Affected: [IC 13-18-17-6](#); [IC 13-23-3](#)

Sec. 18.5. "Existing" means that a:

- (1) tank;**
- (2) piping;**
- (3) motor fuel dispensing system;**
- (4) facility;**
- (5) community public water supply system (CPWSS); or**
- (6) potable drinking water well;**

is in place prior to beginning the installation or replacement of a tank, piping, or motor fuel dispensing system. The term includes a potable drinking water well that the UST owner has or will install at a new underground storage tank facility regardless of whether the well is installed before or after the tanks, piping, and motor fuel dispenser systems.

(Solid Waste Management Board; [329 IAC 9-1-18.5](#))

SECTION 2. [329 IAC 9-1-27.5](#) IS ADDED TO READ AS FOLLOWS:

[329 IAC 9-1-27.5](#) "Interstitial monitoring" defined

Authority: [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#)

Affected: [IC 13-18-17-6](#); [IC 13-23-3](#)

Sec. 27.5. "Interstitial monitoring" means a release detection method that continuously monitors the interstitial space of an underground storage tank and piping. The term includes only those release detection systems that are capable of detecting a breach in the primary containment of the underground storage tank and piping component being monitored before the regulated substance or petroleum stored is released to the environment.

(Solid Waste Management Board; [329 IAC 9-1-27.5](#))

SECTION 3. [329 IAC 9-1-27.6](#) IS ADDED TO READ AS FOLLOWS:

329 IAC 9-1-27.6 "Interstitial space" defined

Authority: [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#)

Affected: [IC 13-18-17-6](#); [IC 13-23-3](#)

Sec. 27.6. "Interstitial space" means the space between the primary and secondary containment systems.

(Solid Waste Management Board; [329 IAC 9-1-27.6](#))

SECTION 4. [329 IAC 9-1-27.8](#) IS ADDED TO READ AS FOLLOWS:

329 IAC 9-1-27.8 "Karst terrains" defined

Authority: [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#)

Affected: [IC 13-18-17-6](#); [IC 13-23-3](#)

Sec. 27.8. "Karst terrains" means an area where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present to karst terrains include any of the following:

- (1) Sinkholes.**
- (2) Sinking streams.**
- (3) Caves.**
- (4) Large springs.**
- (5) Blind valleys.**
- (6) Grikes.**
- (7) Karren.**
- (8) Solution widened joints or bedding planes.**
- (9) Loss of drilling fluid during core drilling.**
- (10) Anasotmosis, and conduits of less than one (1) meter, but more than two and five-tenths (2.5) millimeters.**
- (11) Karst aquifer.**

(Solid Waste Management Board; [329 IAC 9-1-27.8](#))

SECTION 5. [329 IAC 9-1-37](#) IS AMENDED TO READ AS FOLLOWS:

329 IAC 9-1-37 "Pipe" or "piping" defined

Authority: [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#)

Affected: [IC 13-18-17-6](#); [IC 13-23-3](#)

Sec. 37. (a) "Pipe" or "piping" means a hollow cylinder or tubular conduit that is constructed of nonearthen materials that routinely contains and conveys regulated substances from the tank or tanks to the dispenser or other end-use equipment. The term includes a suction system for product delivery under [329 IAC 9-7-2\(2\)\(B\)](#).

(b) The term does not include vent, vapor recovery, or fill lines that do not routinely contain regulated substances.

(Solid Waste Management Board; [329 IAC 9-1-37](#); filed Dec 1, 1992, 5:00 p.m.: 16 IR 1067; readopted filed Jan 10, 2001, 3:25 p.m.: 24 IR 1535)

SECTION 6. [329 IAC 9-1-40.5](#) IS ADDED TO READ AS FOLLOWS:

329 IAC 9-1-40.5 "Replaced" defined

Authority: [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#)

Affected: [IC 13-18-17-6](#); [IC 13-23-3](#)

Sec. 40.5. "Replaced" means the permanent removal from service and the new installation of any of the following:

- (1) An underground storage tank.
- (2) More than fifty percent (50%) of the length of any underground piping between the tank and the dispenser or other end-use equipment at any one (1) time.
- (3) A motor fuel dispenser system and the equipment necessary to connect the dispenser to the underground storage tank system. For purposes of this definition, this equipment includes flexible connectors, risers, or other transitional components that are beneath the dispenser and connect the dispenser to the piping.

(Solid Waste Management Board; [329 IAC 9-1-40.5](#))

SECTION 7. [329 IAC 9-1-41.8](#) IS ADDED TO READ AS FOLLOWS:

[329 IAC 9-1-41.8](#) "Secondary containment" defined

Authority: [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#)

Affected: [IC 13-18-17-6](#); [IC 13-23-3](#)

Sec. 41.8. "Secondary containment" means a release detection system that meets the requirements of [329 IAC 9-7-4\(7\)](#), but does not include an under-dispenser spill containment system.

(Solid Waste Management Board; [329 IAC 9-1-41.8](#))

SECTION 8. [329 IAC 9-1-45.5](#) IS ADDED TO READ AS FOLLOWS:

[329 IAC 9-1-45.5](#) "Under-dispenser spill containment" defined

Authority: [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#)

Affected: [IC 13-18-17-6](#); [IC 13-23-3](#)

Sec. 45.5. (a) "Under-dispenser spill containment" means a device that is capable of preventing an unauthorized release from under the dispenser from entering the soil or ground water, or both.

(b) Under-dispenser spill containment must:

- (1) not allow liquid to penetrate on any side or bottom;
- (2) be compatible with the substance conveyed by the piping; and
- (3) allow for visual inspection and access to the components in the under-dispenser spill containment system.

(Solid Waste Management Board; [329 IAC 9-1-45.5](#))

SECTION 9. [329 IAC 9-2-1](#) IS AMENDED TO READ AS FOLLOWS:

[329 IAC 9-2-1](#) New UST systems

Authority: [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#)

Affected: [IC 13-11-2-184](#); [IC 13-23](#); [IC 25-31-1](#)

Sec. 1. In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, all owners and operators of new UST systems shall meet the following requirements:

- (1) Each tank must be properly designed and constructed, and any portion underground that routinely contains product must be protected from corrosion as specified under one (1) of the following:

- (A) The tank is constructed of fiberglass-reinforced plastic and meets one (1) of the following:
- (i) Underwriters Laboratories Standard 1316, "Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohol, and Alcohol-Gasoline Mixtures", revised 1996, Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, Illinois 60062.
 - (ii) Underwriters Laboratories of Canada CAN/ULC-S615-1998, "Standard for Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids", 1998, Underwriters Laboratories of Canada, 7 Crouse Road, Scarborough, Ontario, M1R 3A9 Canada.
 - (iii) ASTM D4021-86, "Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks", revised 1992, American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959.
- (B) The tank is constructed of steel and cathodically protected in the following manner:
- (i) The tank is:
 - (AA) coated with a suitable dielectric material; and is
 - (BB) cathodically protected.
 - (ii) Field-installed impressed current systems are designed by a corrosion expert to allow determination of current operating status under [329 IAC 9-3.1-2\(3\)](#).
 - (iii) Cathodic protection systems are operated and maintained under [329 IAC 9-3.1-2](#).
 - (iv) The tank complies with one (1) or more of the following:
 - (AA) Steel Tank Institute "sti-P₃"® Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks", STI-P3-98, revised 1998, Steel Tank Association, 570 Oakwood Road, Lake Zurich, Illinois 60047.
 - (BB) Underwriter Laboratories Standard 1746, "External Corrosion Protection Systems for Steel Underground Storage Tanks", 2000, Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, Illinois 60062.
 - (CC) Underwriters Laboratories of Canada CAN/ULC-S603-92, "Standards for Steel Underground Tanks for Flammable and Combustible Liquids", 1992, Underwriters Laboratories of Canada, 7 Crouse Road, Scarborough, Ontario, M1R 3A9 Canada.
 - (DD) Underwriter Laboratories of Canada CAN/ULC-S603.1-92, "Standard for Galvanic Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids", 1992, Underwriters Laboratories of Canada, 7 Crouse Road, Scarborough, Ontario, M1R 3A9 Canada.
 - (EE) Underwriters Laboratories of Canada CAN4-S631-M84, "Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems", 1992, Underwriters Laboratories of Canada, 7 Crouse Road, Scarborough, Ontario, M1R 3A9 Canada.
 - (FF) NACE International (formerly the National Association of Corrosion Engineers) Standard RP0285-95, "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection", revised 1995, NACE International, P.O. Box 218340, Houston, Texas 77218-8340.
 - (GG) Underwriters Laboratories Standard 58, "Steel Underground Tanks for Flammable and Combustible Liquids", 1998, Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, Illinois 60062.
- (C) The tank is constructed of a steel-fiberglass-reinforced-plastic composite and complies with one (1) or more of the following:
- (i) Underwriters Laboratories Standard 1746, "External Corrosion Protection Systems for Steel Underground Storage Tanks", 2000, Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, Illinois 60062.
 - (ii) Association for Composite Tanks ACT-100®, "Specification for External Corrosion Protection of FRP Composite Steel USTs, F894-98", revised 1998, Steel Tank Association, 570 Oakwood Road, Lake Zurich, Illinois 60047.
- (D) The tank is constructed of metal without additional corrosion protection measures provided that the following requirements are completed:
- (i) The tank is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life.
 - (ii) The owner and operator shall demonstrate that soil resistivity in an installation location is twelve thousand (12,000) ohms per centimeter or greater by using one (1) of the following:
 - (AA) ASTM Standard G57-95a, "Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method", revised 1995, reapproved 2001. American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959.
 - (BB) A standard approved by the commissioner that exhibits the same or greater degree of reliability and accuracy as ASTM Standard G57-95a cited in subitem (AA).
 - (iii) The owner and operator shall maintain records that demonstrate compliance with items (i) and (ii) for the remaining life of the tank.
- (E) The tank construction and corrosion protection are determined by the commissioner to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less

protective of human health and the environment than clauses (A) through (D).

(2) The piping that routinely contains regulated substances and is in contact with the ground must be properly designed, constructed, and protected from corrosion. The piping that routinely contains regulated substances and is in contact with the ground must be properly designed, constructed, and protected from corrosion as specified under one (1) of the following:

(A) The piping is constructed of fiberglass-reinforced plastic and complies with one (1) or more of the following:

(i) Underwriters Laboratories Standard 971, "Nonmetallic Underground Piping for Flammable Liquids", 1995, Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, Illinois 60062.

(ii) Underwriters Laboratories Standard 567, revised 2001, "Pipe Connectors for Petroleum Products and LP Gas", Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, Illinois 60062.

(iii) Underwriters Laboratories of Canada Subject CAN/ORD-C 107.7-1993 "Glass Fibre Reinforced Plastic Pipe and Fittings for Flammable and Combustible Liquids", 1993 First Edition, Underwriters Laboratories of Canada, 7 Crouse Road, Scarborough, Ontario, M1R 3A9 Canada.

(iv) Underwriters Laboratories of Canada Standard CAN/ULC-S633-99, "Flexible Underground Hose Connectors for Flammable and Combustible Liquids", 1999, Underwriters Laboratories of Canada, 7 Crouse Road, Scarborough, Ontario, M1R 3A9 Canada.

(B) The piping is constructed of steel and cathodically protected in the following manner:

(i) The piping is:

(AA) coated with a suitable dielectric material; and is

(BB) cathodically protected.

(ii) Field-installed impressed current systems are designed by a corrosion expert to allow determination of current operating status under [329 IAC 9-3.1-2](#)(3).

(iii) Cathodic protection systems are operated and maintained under [329 IAC 9-3.1-2](#).

(iv) The piping system meets one (1) or more of the following:

(AA) "Flammable and Combustible Liquids", of the Indiana Fire Code under rules of the fire prevention and building safety commission at [675 IAC 22](#).

(BB) American Petroleum Institute Recommended Practice 1615, "Installation of Underground Petroleum Storage Systems", Fifth Edition, March 1996, American Petroleum Institute, 1220 L Street NW, Washington, D.C. 20005-4070.

(CC) American Petroleum Institute Recommended Practice 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems", Third Edition, May 1996, American Petroleum Institute, 1220 L Street NW, Washington, D.C. 20005-4070.

(DD) Nace International (formerly the National Association of Corrosion Engineers) Standard RP0169-96, "Control of External Corrosion on Underground or Submerged Metallic Piping Systems", 1996 Edition, NACE International, P.O. Box 218340, Houston, Texas 77218-8340.

(C) The piping is constructed of metal without additional corrosion protection measures provided that the following requirements are completed:

(i) The piping is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life.

(ii) The owner and operator shall demonstrate that soil resistivity in an installation location is twelve thousand (12,000) ohms per centimeter or greater by using one (1) of the following:

(AA) ASTM Standard G57-95a, "Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method", revised 1995, reapproved 2001. American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959.

(BB) A standard approved by the commissioner that exhibits the same or greater degree of reliability and accuracy as ASTM Standard G57-95a cited in subitem (AA).

(iii) The piping complies with one (1) or more of the following:

(AA) "Flammable and Combustible Liquids", of the Indiana Fire Code under rules of the fire prevention and building safety commission at [675 IAC 22](#).

(BB) Nace International (formerly the National Association of Corrosion Engineers) Standard RP0169-96, "Control of External Corrosion on Underground or Submerged Metallic Piping Systems", 1996 Edition, NACE International, P.O. Box 218340, Houston, Texas 77218-8340.

(iv) The owner and operator shall maintain records that demonstrate compliance with items (i) and (ii) for the remaining life of the piping.

(D) **Notwithstanding the requirements in section 1.1 of this rule, all connected piping, is installed or replaced after the effective date of the 2008 amendments to this rule, must be equipped with secondary containment, that includes and the connected piping and secondary containment must meet the following standards:**

(i) Contain regulated substances released from the piping until the regulated substance can be detected and removed.

- (ii) Prevent the release of regulated substances to the environment at any time during the operational life of the piping.
 - (iii) Be checked for evidence of a release by:
 - (AA) inventory control at least every thirty (30) days; and
 - (BB) pressure testing upon installation, again six (6) months after installation, and every thirty-six (36) months thereafter.
 - (iv) The interstitial monitoring device must be located in the interstitial space between the walls and meet the following as appropriate:
 - (AA) The interstitial space is under a vacuum or pressure.
 - (BB) The interstitial space is liquid-filled.
 - (CC) The interstitial space is monitored continually.
 - (v) Was or will be installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability and running conditions.
 - (vi) Monitoring devices between the inner and outer barriers of the piping can detect a leak or release of product from the primary barrier.
 - (vii) Meets the standard Underwriters Laboratory Standard 971, "Nonmetallic Underground Piping for Flammable Liquids", 1995, Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, Illinois 60062.
 - (viii) Is either of the following:
 - (AA) Connected piping is one hundred percent (100%) secondarily contained.
 - (BB) Secondarily contained piping with single-walled piping ends that terminate in tank and dispenser sumps.
 - (ix) Include one (1) of the following:
 - (i) (AA) Double-walled piping that consists of an outer wall constructed of a dielectric material.
 - (ii) (BB) Vaulted piping.
 - (x) After the effective date of the 2008 amendments to this rule, any construction design releases:
 - (AA) that were issued by the department of homeland security, division of fire and building safety under rules of the fire prevention and building safety commission at [675 IAC 12-12](#); and
 - (BB) where construction has not commenced;must be amended to include secondary containment of connected piping that meets all the standards of this subdivision and resubmitted for release by the department of homeland security, division of fire and building safety. For purposes of this item, "release" does not have the meaning as specified in [IC 13-11-2-184](#).
 - (E) The piping construction and corrosion protection are determined by the commissioner to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than **the requirements of** clauses (A) through (D).
- (3) The following spill and overfill requirements must be completed:
- (A) Except as provided in clause (B), the owner and operator shall use the following spill and overfill prevention equipment to prevent spilling and overfilling associated with product transfer to the UST system:
 - (i) Spill prevention equipment that prevents the release of product to the environment when the transfer hose is detached from the fill pipe as one (1) of the following:
 - (AA) Minimum five (5) gallon spill catchment basin with drain to tank.
 - (BB) Minimum twenty-five (25) gallon spill catchment basin without drain to tank.
 - (ii) Overfill prevention equipment that completes one (1) of the following:
 - (AA) Automatically shuts off flow into the tank when the tank is ~~no~~ **not** more than ninety-five percent (95%) full.
 - (BB) Alerts the transfer operator when the tank is ~~no~~ **not** more than ninety percent (90%) full by restricting the flow into the tank or triggering a high level alarm.
 - (CC) Restricts flow thirty (30) minutes prior to overfilling, alerts the transfer operator with a high level alarm one (1) minute before overfilling, or automatically shuts off flow into the tank so that none of the fittings located on top of the tank are exposed to product due to overfilling.
 - (B) The owner and operator are not required to use the spill and overfill prevention equipment specified in clause (A) if one (1) of the following is completed:
 - (i) Alternative equipment is used that is determined by the commissioner to be ~~no~~ **not** less protective of human health and the environment than the equipment specified in clause (A).
 - (ii) The UST system is filled by transfers of ~~no~~ **not** more than twenty-five (25) gallons at one (1) time.
 - (C) A drop tube for deliveries must extend to within one (1) foot of the tank bottom.
- (4) Under-dispenser containment, as defined in [329 IAC 9-1-45.5](#), is required for the following:
- (A) Any new motor fuel dispenser installed at a new underground storage tank facility.
 - (B) Any new motor fuel dispenser installed at a new location at an existing underground storage

tank facility.

(C) Any replaced motor fuel dispenser installed at an existing underground storage tank facility where the replaced piping or equipment is added to the underground storage tank system to connect the replaced dispenser to the existing system.

- (4) **(5)** All tanks and piping must be installed properly in accordance with one (1) or more of the following:
- (A) American Petroleum Institute Recommended Practice 1615, "Installation of Underground Petroleum Storage Systems", Fifth Edition, March 1996, American Petroleum Institute, 1220 L Street NW, Washington, D.C. 20005-4070.
 - (B) Petroleum Equipment Institute Publication PEI/RP100-2000, "Recommended Practices for Installation of Underground Liquid Storage Systems", 2000, Petroleum Equipment Institute, P.O. Box 2380, Tulsa, Oklahoma 74101-2380.
 - (C) American National Standards Institute Standard ANSI/ASME B31.3-1999, "Process Piping", 1999, American National Standards Institute, 11 West 42nd Street, New York, New York 10036.
 - (D) American National Standards Institute Standard ANSI/ASME B31.4-1998 Edition, "Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids", 1998, American National Standards Institute, 11 West 42nd Street, New York, New York 10036.
- ~~(5)~~ **(6)** The owner and operator shall ensure the following:
- (A) The installer has been certified by the ~~office of the state fire marshal~~ **department of homeland security, division of fire and building safety** under rules of the fire prevention and building safety commission at [675 IAC 12-12](#).
 - (B) One (1) or more of the following methods of certification, testing, or inspection is used to demonstrate compliance with subdivision (4):
 - (i) The installer has been certified by the tank and piping manufacturers.
 - (ii) The installation has been inspected and certified by a registered professional engineer under [IC 25-31-1](#) with education and experience in UST system installation.
 - (iii) The installation has been inspected and approved by one (1) of the following:
 - (AA) The agency.
 - (BB) The ~~office of the state fire marshal~~ **department of homeland security, division of fire and building safety**.
 - (iv) The owner and operator have complied with another method for ensuring compliance with subdivision (4) that is determined by the commissioner to be ~~no~~ **not** less protective of human health and the environment.
 - (C) The owner and operator shall provide a certification of compliance on the notification form under section 2 of this rule.

(Solid Waste Management Board; [329 IAC 9-2-1](#); filed Dec 1, 1992, 5:00 p.m.: 16 IR 1068; filed Jul 19, 1999, 12:00 p.m.: 22 IR 3695; errata filed Sep 10, 1999, 9:08 a.m.: 23 IR 26; readopted filed Jan 10, 2001, 3:25 p.m.: 24 IR 1535; filed Aug 30, 2004, 9:35 a.m.: 28 IR 148)

SECTION 10. [329 IAC 9-2-2](#) IS AMENDED TO READ AS FOLLOWS:

[329 IAC 9-2-2](#) Notification requirements

Authority: [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#)

Affected: [IC 13-23-3](#)

Sec. 2. (a) All notifications required to be submitted under this section must be submitted on a form and in a format prescribed by the commissioner.

(b) Any person who owns an UST system or tank shall, within thirty (30) days of owning such an UST system or tank or bringing such tank or UST system into use, submit notice to the agency to register the tank or UST system. Bringing a tank or UST system "into use" means the tank or UST system contains or has:

- (1)** contained a regulated substance; and has
- (2)** not been closed under [329 IAC 9-6](#).

(c) An owner required to submit notice under this section shall provide notice for each tank the owner owns. The owner may provide notice for several tanks at one (1) location using one (1) form. An owner with tanks located in more than one (1) place of operation shall submit a separate notification form for each separate place of operation.

(d) An owner required to submit notice under this section shall provide all the information required by the form provided by the agency for each tank for which notice is submitted.

(e) All owners and operators of new **or replaced** UST systems shall certify, on each notification form submitted, with original signature in ink, compliance with the following requirements:

- (1) Installation of all tanks and piping under section 1(5) of this rule.
- (2) Cathodic protection of steel tanks and piping under section 1(1) and 1(2) of this rule.
- (3) Release detection under [329 IAC 9-7-2](#) and [329 IAC 9-7-3](#).
- (4) Financial responsibility under [329 IAC 9-8](#).

(f) All owners and operators of UST systems shall ensure that whoever performs tank system:

- (1) installations;
- (2) testing;
- (3) upgrades;
- (4) closures;
- (5) removals; and
- (6) change-in-service;

is certified by the ~~office of the state fire marshal~~ **department of homeland security, division of fire and building safety**. The certified person who performs the work shall certify, by original signature in ink on the notification form provided by the agency, that the work performed complies with methods specified by section 1(4) of this rule.

(g) All owners and operators of UST systems who upgrade the tank system to meet upgrade requirements under [329 IAC 9-2.1](#) shall, within thirty (30) days of completing the upgrade, submit notice of the upgrade to the agency.

(h) All owners and operators of UST systems who:

- (1) temporarily close a tank system under [329 IAC 9-6-5](#); or
- (2) close a tank system under [329 IAC 9-6-1](#);

shall, within thirty (30) days of completing such action, submit notice of this action to the agency.

(i) All owners and operators of UST systems who install a method of release detection under [329 IAC 9-7-2](#) and [329 IAC 9-7-3](#) shall, within thirty (30) days of completing such action, submit notice of this action to the agency.

(j) Any person who sells a facility with a regulated underground storage tank that:

- (1) is being used as an UST system; or
- (2) will be used as an UST system;

shall notify the purchaser of such tank of the owner's obligation to submit notice under subsection (b).

(k) An owner and operator of an UST system that is:

- (1) in the ground on or after May 8, 1986; and
- (2) not taken out of operational life on or before January 1, 1974;

shall notify the agency of the service status of the UST system under 42 U.S.C. 6991a of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6901, et seq., in effect on September 30, 1996, on a form provided by the agency for this notification.

(Solid Waste Management Board; [329 IAC 9-2-2](#); filed Dec 1, 1992, 5:00 p.m.: 16 IR 1068; filed Jul 19, 1999, 12:00 p.m.: 22 IR 3699; readopted filed Jan 10, 2001, 3:25 p.m.: 24 IR 1535; filed Aug 30, 2004, 9:35 a.m.: 28 IR 150; errata filed Oct 7, 2004, 11:55 a.m.: 28 IR 608)

SECTION 11. [329 IAC 9-3-1.2](#) IS ADDED TO READ AS FOLLOWS:

[329 IAC 9-3-1.2](#) Secondary containment

Authority: [IC 13-14-8-1](#); [IC 13-14-8-2](#); [IC 13-23-1-1](#); [IC 13-23-1-2](#)

Affected: [IC 13-23](#)

Sec. 1.2. The owner and operator of an UST system shall have all newly installed tanks and piping or all replaced tanks and piping secondarily contained as required under section [329 IAC 9-2-1\(1\)](#), [329 IAC 9-2-1.1\(b\)\(1\)](#), [329 IAC 9-7-3\(2\)](#) for tanks, and [329 IAC 9-2-1\(2\)\(D\)](#) and [329 IAC 9-2-1.1\(b\)\(2\)](#) for piping.

(Solid Waste Management Board; [329 IAC 9-3-1.2](#))

SECTION 12. [329 IAC 9-1-27.4](#) IS REPEALED.

[Notice of Public Hearing](#)

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